NRC/NEI Public Meeting

March 3-4, 2005

NEI Handouts and Technical Specification Discussion Related Topics
(Provided in an E-mail Dated February 25, 2005)

Handout

1) COL Operational Programs (Inservice Inspection/Inservice Testing) - Draft for Discussion

2) Proposed Preservice Inspection/Inservice Inspection Program Requirements

   -Overview and Timeline of COL Application Related Activities

3) NEI Draft for Discussion: NRC SRM-SECY-04-0032 - Programmatic Information Needed for Approval of a Combined License Without Inspections, Tests, Analyses, and Acceptance Criteria

   -Security, Access Authorization, Fitness for Duty

   -Reportability

   -Maintenance Rule

Technical Specification Discussion Related Topics

1) Determination of which generic TS info is considered "completely reviewed and approved," and which is not. This determination has bearing on the change process that the generic TS information is subject to.

2) Process for plant-specific departures from bracketed generic TS info and other info NOT completely reviewed and approved in the design certification. For example, use of Section VIII.C.3 of the design certification rules to implement such departures proposed to NRC in a COL application. This would be consistent with the process under Part 50 whereby the NRC has issued final PSTS as part of the license based on TS proposed in the operating license application and would be an alternative to the more onerous exemption process of Section VIII.C.4.

3) Consideration of generic TS bracketed information as equivalent to "copnceptual information," as proposed in NEI 04-01, Rev. D, such that changes do not require an exemption under design certification rules Section VIII.C.4.

4) [Related Issue] Determination of – aside from portions of the generic TS – which other DCD info is considered to be "operational requirements not completely reviewed and approved" (e.g., AP1000 DCD info in Sections 3.9.6, 5.2.4, and 6.6 on ISI/IST). This is important to understand because changes to operational requirements not completely reviewed and approved that do not require a design change would NOT be restricted by Section 52.63.

COL Operational Programs (ISI/IST) – Draft for Discussion

OVERVIEW:

At the COL Application Stage:

- The COL Applicant's Required Actions Pertaining to Design and Access.
- Program Description Described in DCD Sections 3.9.6, 5.2.4, and 6.6.

Prior to COL Issuance:

- COL Applicant Request NRC Approval PSI and PST Codes of Record.

Following COL Issuance and Prior to Performing Inspections and Tests:

- COL Holder Submit PSI and PST Programs for NRC Review.

Twelve Months Prior to the Commission's 10 CFR 52.103(g) Finding (Fuel Load):

- COL Holder Request NRC Approval of ISI and IST Codes of Record.

Prior to Commercial Operation:

- COL Holder Submit ISI and IST Programs for NRC Review.

Proposed PSI/ISI Program Requirements Timeline (attached)

Proposed PST/IST Program Requirements Timeline (attached)

COL Operational Programs (ISI/IST) – Draft for Discussion

At the COL Application Stage:

Assumption: The COL applicant references a Certified Design (i.e. AP1000) and the basic design of the plant will be completed.

Design and Access

Based on the Code edition/addenda used in Certified Design (CD) that was incorporated by reference in paragraph (b) of 10 CFR 50.55a and subject to the limitations and modifications listed in the regulation, including any code cases used, and any proposed alternatives described in the CD, the COL applicant will confirm that, to the extent practical, the design will (a) provide access and (b) the component and system configuration will enable the performance of the inservice testing, (c), the scope of components to be inspected and tested will conform to the applicable ASME Code requirements, and (d) the methods used to perform inservice inspections and tests conform with applicable ASME Code requirements. In the case of the AP1000, the baseline code used for the evaluations done to support design access is the 1998 Edition of ASME Section III and is discussed in section 5.2.1.1 of the DCD. The ISI/IST access design is based on design provisions in accordance with the 1998 Edition with the 2000 Addenda of ASME Section XI, IWA-1500 and is discussed in sections 5.2.4.2 (Class 1) and 6.6.2 (Class 2 and 3) of the DCD.

Program Description

Descriptions of the inservice inspection (ISI) and inservice testing (IST) programs are provided in DCD sections 3.9.6, 5.2.4, and 6.6 and adhere to NUREG-0800.

- Paragraph 3.9.6 – A Preservice test (PST) program which identifies the required functional testing, is to be submitted to the NRC by the COL applicant prior to performing the tests and following the start of construction.

- Paragraph 3.9.6 – The inservice test (IST) program which identifies the requirements for functional testing, is to be submitted to the NRC prior to the date of commercial operation by the COL applicant.

- Paragraph 5.2.4 – A preservice inspection (PSI) program for ASME Class 1 components will be developed and submitted to the NRC. The preservice programs provide details of areas subject to examination, as well as the method and extent of preservice examinations.

- Paragraph 5.2.4 – The inservice inspection (ISI) program for ASME Class 1 components will be submitted to the NRC by the COL applicant. Inservice programs detail the areas subject to examination and the method, extent, and frequency of examinations. Additionally, component supports and snubber testing requirements are included in the inspection programs.

- Paragraph 6.6.1 – Preparation of PSI programs for ASME Class 2 and 3 components is the responsibility of the COL applicant. The preservice programs provide details of areas subject to examination, as well as the method and extent of preservice examinations.

- Paragraph 6.6.1 – The ISI program for Class 2 and 3 Components is the responsibility of the COL applicant prior to commercial operation. Inservice programs detail the areas subject to examination and the method, extent, and frequency of examinations.

Staff review would be documented in the COL FSER.

Prior to COL Issuance:

The COL applicant will request that the editions and addenda of the ASME Section XI Code (ISI) and OM Code (IST) incorporated by reference in paragraph (b) of 10 CFR 50.55a (subject to the limitations and modifications listed in the regulation) in effect 6 months before COL issuance [1] be approved as the PSI and PST codes of record.

Following COL Issuance and Prior to Performing Inspections and Tests:

The COL holder will submit for NRC review PSI and PST programs based on the respective codes of record containing:

- Confirmation that, to the extent practical, the design will (a) provide access and (b) the component and system configuration will enable the performance of inservice inspection and testing, (c), the scope of components to be inspected and tests will conform to the applicable ASME Code requirements, and (d) the methods used to perform inservice inspections and tests conform with applicable ASME Code requirements.
- A listing of Code Cases that will be needed or used as described in regulatory guides approved in 10 CFR 50.55a(b), including limitations.
- Proposed alternatives per 10 CFR 50.55a(a)(3)(i) or (ii) to use Code Cases not approved by the NRC at the time of the program submittal.
- Proposed alternatives per 10 CFR 50.55a(a)(3)(i) or (ii) to use Risk-Informed or other processes not approved by the NRC at the time of the program submittal.

Staff review will be documented in a safety evaluation issue to the COL holder.

[1] Conflicts with current 10 CFR 50.55a ISI requirements. Currently 10 CFR 50.55a(g)(3)(i) and (ii) require that PSI must meet the requirements set forth in editions and addenda of the ASME Section XI Code incorporated by reference in paragraph (b) of 10 CFR 50.55a applied to the construction of the particular component. Deviation from this requirement will require a regulation change or the COL applicant must submit a request for an alternative per 10 CFR 50.55a(a)(3).

Twelve Months Prior to the Commission's 10 CFR Part 52 .103(g) Finding (Fuel Load):

The COL applicant will request that the editions and addenda of the ASME Section XI Code (ISI) and OM Code (IST) incorporated by reference in paragraph (b) of 10 CFR 50.55a (subject to the limitations and modifications listed in the regulation) in effect 12 months before Commission's 10 CFR Part 52 .103(g) Finding (Fuel Load) [2] be approved as the ISI and IST codes of record.

Prior to Commercial Operation:

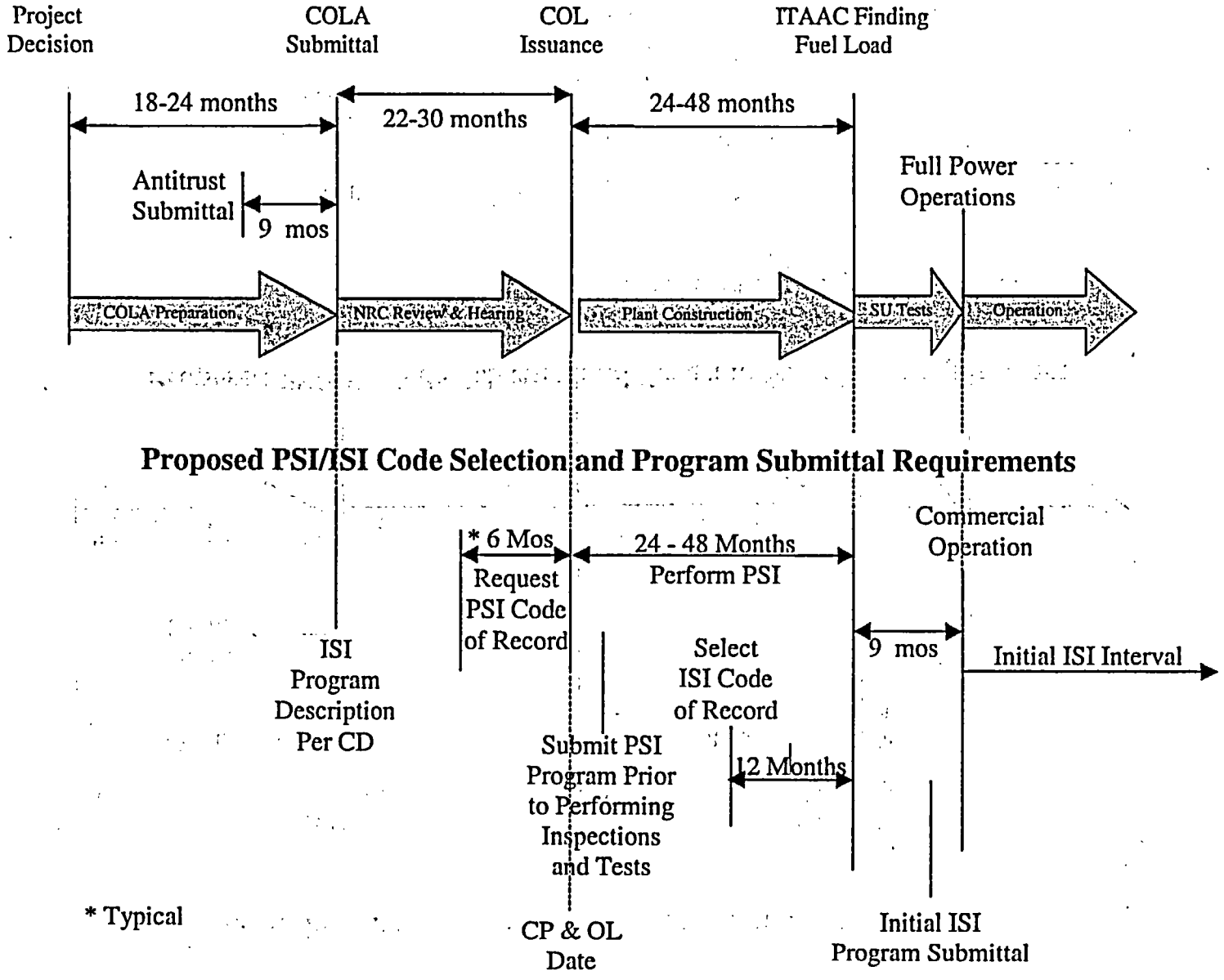
The COL holder will submit for NRC review ISI and IST programs based on the respective codes of record containing:

- Confirmation that, to the extent practical, the design will (a) provide access and (b) the component and system configuration will enable the performance of inservice inspection and testing, (c), the scope of components to be inspected and tests will conform to the applicable ASME Code requirements, and (d) the methods used to perform inservice inspections and tests conform with applicable ASME Code requirements.
- A listing of Code Cases that will be needed or used as described in regulatory guides approved in 10 CFR 50.55a(b), including limitations.
- Proposed alternatives per 10 CFR 50.55a(a)(3)(i) or (ii) to use Code Cases not approved by the NRC at the time of the program submittal.
- Proposed alternatives per 10 CFR 50.55a(a)(3)(i) or (ii) to use Risk-Informed or other processes not approved by the NRC at the time of the program submittal.

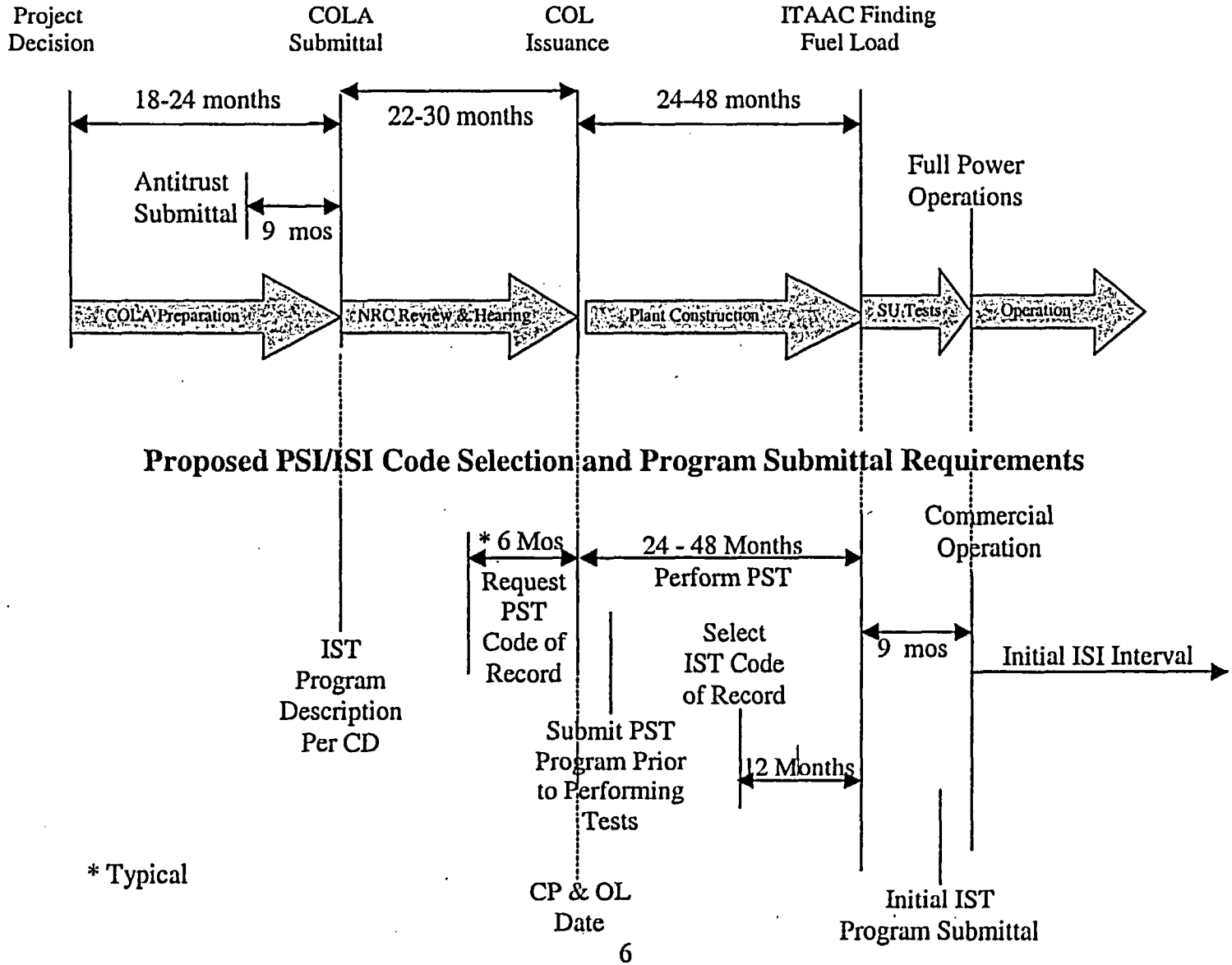
Staff review will be documented in a safety evaluation.

[2] Conflicts with current 10 CFR 50.55a requirements. Currently 10 CFR 50.55a(f)(5)(iv) and 10 CFR 50.55a(g)(4)(i) require that ISI and IST must comply with the requirements set forth in editions and addenda of the ASME Section XI Code (ISI) and the ASME OM Code (IST) incorporated by reference in paragraph (b) of 10 CFR 50.55a twelve months before the date of issuance of the operating license, subject to the limitations and modifications. Deviation from this requirement will require a regulation change or the COL holder must submit a request for an alternative per 10 CFR 50.55a(a)(3).

Overview and Timeline of COL Application Related Activities



Overview and Timeline of COL Application Related Activities



NEI Draft For Discussion
03/05

NRC SRM - SECY-04-0032 - Programmatic Information Needed For Approval Of A Combined License Without Inspections, Tests, Analysis And Acceptance Criteria

SECURITY, ACCESS AUTHORIZATION, FITNESS FOR DUTY

Background

The security program for a nuclear power plants encompasses all of the elements associated with site physical security, access authorization, and fitness for duty. Nuclear power plant licensee Security and Access Authorization requirements are contained in Part 73 of Title 10 of the Code of Federal Regulations (10CFR). Requirements for Fitness for Duty are contained in 10 CFR Part 26. Following the events of September 11, 2001, the NRC issued security orders which supplemented and in some cases modified the security requirements contained in Parts 73 and 26.

Discussion

Nuclear power plant licensees have implemented security requirements, including recent NRC orders, in their Security Plans, Contingency Plans and Guard Training and Qualification Plans (collectively the Security Plan) based on a template that was endorsed by NRC (NEI 03-12, Revision 1). The template language in the industry Security Plans incorporates by reference NEI 03-01, Revision 1 (Nuclear Power Plant Access Authorization Program), which provides the program description for the Access Authorization and Fitness for Duty Programs and reflects the updated requirements based on the NRC security order compensatory measures. The Security Plan will be a license condition (SECY 00-0092, Attachment 2, Paragraph 2.G) contained in the plant combined operating licensee (COL) and will incorporate by reference the description of the Access Authorization and Fitness for Duty programs in NEI 03-01, Revision 1.

The level of detail in a COL application regarding these programs will be the same as the previously approved template for the Security Plans of the existing operating plants (i.e., NEI 03-12, Revision 1 and NEI 03-01, Revision 1). The Security Plan, including requirements for Access Authorization and Fitness for Duty, is addressed in Chapter 13 of the FSAR. This information is submitted to the NRC but withheld from public disclosure in accordance with the provisions of 10 CFR 73.21 for security reasons.

For example, AP1000 DCD Section 13.6 addresses security. Specific aspects of the plant physical security design have been reviewed and approved by the NRC as provided in the AP1000 Security Assessment that was submitted under separate cover in accordance with 10 CFR 73.21. The balance of security information assigned to the COL applicant as COL information items will be addressed in the COL applicant plant specific DCD which will reference the Security Plan as described above. The plant specific Security Plan will

be submitted to the NRC but with held from public disclosure in accordance with the provisions of 10 CFR 73.21.

Implementation

As described in NEI 04-01 Section 5.1.2, 10 CFR 26.2(c) specifies that certain elements of Fitness for Duty Program are applicable for plants under active construction. "Active Construction" would constitute a licensing action by the NRC which allows limited work (i.e., 10 CFR 50.10(e)(3) or the issuance of a COL. Portions of the Security Plan (site physical security, access authorization, fitness for duty) associated with the receipt of special nuclear material will in place prior to receipt of the special nuclear material (e.g., new fuel) on site. The entire plant specific Security Plan will be implemented prior to fuel load.

Adequate implementation of nuclear power plant licensee Security Plan requirements would be verified by normal NRC inspection activities. These inspections would be part of the Operational Readiness Assessment performed by the NRC.

NEI Draft For Discussion
03/05

NRC SRM - SECY-04-0032 - Programmatic Information Needed For Approval Of A Combined License Without Inspections, Tests, Analysis And Acceptance Criteria

REPORTABILITY

Background

NRC Reportability requirements for U.S. nuclear power plant licensees consist of those requirements contained in Title 10 of the Code of Federal Regulations (CFR) and include those in Parts 1 – 199 of 10 CFR and the Operating License (including Appendices A [Technical Specifications], B [Environmental Protection Plan]). NRC Regulatory Guides 10.1 and 1.16 identified reporting requirements applicable to NRC licensees and those contained in nuclear power plant Operating License Appendix A Technical Specifications, but these Regulatory Guides have not been updated since 1981 and 1975, respectively. There are over 200 federal regulation reporting requirements applicable to nuclear power plant licensees today, in addition to those contained in the plant Operating License.

Discussion

Reporting is not considered a "program" as implemented by nuclear power plant licensees. Licensees typically have an overall reporting procedure which identifies the reporting requirement, method, frequency, responsible department, preparer, approver, and submittal recipient. These specific reporting requirements are embedded in the responsible plant organization / departmental procedures for reports associated with specific events.

In addition, reportability is not included in the scope of FSAR operational program descriptions contained in Regulatory Guide 1.70, Revision 3, or NUREG-0800 (Standard Review Plan). As such, a description of reportability has not been considered a required element by the NRC to make a reasonable assurance finding of adequate protection of pubic health and safety.

Conclusion

Reporting has not been considered a "program" by the NRC or as implemented by nuclear power plant licensees. NRC Reporting consists of federal requirements which are embedded in nuclear power plant procedures. In addition, reportability is not included in the scope of FSAR operational program descriptions contained in Regulatory Guide 1.70, Revision 3, or NUREG-0800 (Standard Review Plan) for NRC determination of a reasonable assurance finding of adequate protection of public health and safety.

Adequate implementation of nuclear power plant licensee reporting procedures can be verified by normal NRC inspection activities.

NEI Draft For Discussion
03/05

NRC SRM - SECY-04-0032 - Programmatic Information Needed For Approval Of A Combined License Without Inspections, Tests, Analysis And Acceptance Criteria

MAINTENANCE RULE

Background

10 CFR 50.65 (Requirements for monitoring the effectiveness of maintenance at nuclear power plants) was established in 1991 (with amendments through 1999); its issuance predates the initial licensing of the current nuclear operating fleet. The Maintenance Rule is applicable to operating license holders during all conditions of plant operation (including normal shutdown operations). For plants licensed under Part 52, the Maintenance Rule would be effective after Fuel Load. As such, ITAAC on the Maintenance Rule Program are not contemplated, as discussed in SECY-04-0032.

Discussion

Current FSARS do not contain descriptions of the Maintenance Rule Program. The rule is fairly prescriptive such that an FSAR description would likely mimic the rule; further details would typically only exist at the procedure level. The Maintenance Rule Program is one of the important elements of operational reliability assurance.

Conclusion

Discussion of the Maintenance Rule Program would be included in the COLA FSAR in the context of operational reliability assurance at a level of detail consistent with draft SRP 17.4.